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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHERRY, STEPHEN J

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/904,705

Applicant(s)

RALSTON ET AL.

Examiner

Stephen J. Cherry

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

Claims 46 and 47 are objected to because of the following informalities:

Method claims 46 and 47 recite dependence upon apparatus claim 37, rather than method claim 45.

In a telephone conversation on 7-7-2003 applicants representative, Mr. Becker, suggested examination of the claims based on dependence of claims 46 and 47 on claim 45. Applicant is requested to formally amend the claims to reflect intended dependency.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-47 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S.

Patent 6,452,544 to Hakala et al. The claims describe, as disclosed by Hakala ('544):

1. An augmented vision system comprising:
a wireless hand-held communication device to receive survey-related data from a remote processing system via a wireless network ('544, 130); a display processor to generate image data based on the survey-related data ('544,120); and a portable display device to receive the image data from the display processor, the display device having a substantially transparent display area to superimpose an image on a field of view of a user based on the image data ('544, 110, and col. 4, line 63 to col. 5, line 10).
2. An augmented vision system as recited in claim 1, wherein the communication device is a cellular telephone ('544, 130).
3. An augmented vision system as recited in claim 1, wherein the communication device is a personal digital assistant (PDA) ('544, col. 11, line 3).

4. An augmented vision system as recited in claim 1, wherein the display processor is coupled to the display device via a wireless link ('544, col. 5, line 35).

5. An augmented vision system as recited in claim 1, wherein the display processor is coupled to the communication device via a wireless link ('544, col. 5, line 45).

6. An augmented vision system as recited in claim 1, wherein the survey data received from the remote processing system includes real-time updates of a survey-related dataset ('544, col. 7, line 8).

7. An augmented vision system as recited in claim 1, wherein the remote processing system operates on a computer network coupled to the wireless network ('544, 160).

8. An augmented vision-system as recited in claim 7, wherein the computer network comprises the Internet and the wireless network comprises a cellular communications network ('544, col. 5, lines 33-54).

9. An augmented vision system as recited in claim 7, wherein the communication device includes a web browser and the remote processing system includes a web server, such that the survey-related data is received from the remote processing system in response to a request by the user transmitted using the web browser ('544, col. 6, line 9 discloses "it is possible for user to pick and choose another map server which can provide his or her map information", the map server, 170, coupled to the internet, is interpreted as the web server, and the software that allows the user to pick and choose map information is interpreted as web browser).

10. An augmented vision system as recited in claim 1, wherein the survey-related data is pushed by the remote processing system to the communication device without a specific request for said data by the user ('544, col. 7, line 7 describes real time implementation, the changes that occur in real time would not be known to a user, thus they are inherently initiated without a user request).

11. An augmented vision system as recited in claim 1, wherein the image comprises an image of a natural or manmade object visible within the field of view of the user ('544, col. 6, line 46 to col. 7, line 10).

12. An augmented vision system comprising:

a wireless hand-held communication device to receive survey-related data from a remote server on a wired network, via a wireless network ('544, 130); a display processor to generate stereoscopic image data based on the received survey-related data ('544,120); and a display device, wearable by a user, to receive the image data from the display processor, the display device having a substantially transparent display area to superimpose, on a field of view of the user, stereoscopic images of natural or manmade objects visible within the field of view, based on the image data ('544, 110, and col. 4, line 63 to col. 5, line 10).

13. An augmented vision system as recited in claim 12, wherein the communication device is a cellular telephone ('544, 130).

14. An augmented vision system as recited in claim 12, wherein the communication device is a personal digital assistant (PDA) ('544, col. 11, line 3).

15. An augmented vision system as recited in claim 12, wherein the display processor is coupled to the display device via a wireless link ('544, col. 5, line 35).

16. An augmented vision system as recited in claim 12, wherein the display processor is coupled to the communication device via a wireless link ('544, col. 5, line 45).

17. An augmented vision system as recited in claim 12, wherein the survey data received from the remote server includes real-time updates of a survey-related dataset ('544, col. 7, line 8).

18. An augmented vision system as recited in claim 12, wherein the wireless network comprises a cellular telephony network ('544, col. 5, line 38).

19. An augmented vision system as recited in claim 12, wherein the communication device includes a web browser, wherein the remote server comprises a web server, such that the user requests the survey-related data from the remote server using the web browser ('544, col. 6, line 9 discloses "it is possible for user to pick and choose another map server which can provide his or her map information", the map server, 170, coupled to the internet, is interpreted as the web server, and the software that allows the user to pick and choose map information is interpreted as web browser).

20. An augmented vision system as recited in claim 12, wherein the survey-related data is pushed by the remote server to the communication device without a specific request for said data by the user ('544, col. 7, line 7 describes real time implementation, the changes that occur in real time would not be known to a user, thus they are inherently initiated without a user request).

21. An augmented vision system as recited in claim 12, further comprising an input device to receive input from the user ('544, figs. 1C, and 5A).

22. An augmented vision system as recited in claim 21, wherein the image data is generated in response the input from the user ('544, col. 6, line 9).

23. An augmented vision system as recited in claim 21, wherein the input device is part of the communications device ('544, 130, cellular telephone inherently includes an input device).

24. An augmented vision system as recited in claim 21, wherein the input device comprises a virtual control object ('544, col. 9, line 14).

25. An augmented vision system comprising:

a wireless hand-held communication device to receive survey-related data associated with a current position of a user from a remote server on the Internet, via a wireless network ('544, 130); an input device to receive input from the user ('544, figs. 1C, and 5A); a display processor to generate stereoscopic image data in response to the input from the user based on the survey-related data ('544,120); and a display device wearable by the user, to receive the image data from the display processor via a wireless link, the display device having a substantially transparent display area to superimpose stereoscopic images of objects on a field of view of the user based on the image data ('544, 110, and col. 4, line 63 to col. 5, line 10).

26. An augmented vision system as recited in claim 25, further comprising: a positioning system to precisely determine the position of the user ('544, fig. 2, 220-221); and a head orientation device to determine a current head orientation of the user ('544, col. 5, line 12).

27. An augmented vision system as recited in claim 26, wherein the display processor generates the stereoscopic image data based on the survey-related data, the current position of the user, and the current head orientation of the user ('544, col. 4, line 37).

28. An augmented vision system as recited in claim 25, wherein the communication device is a cellular telephone ('544, 130).

29. An augmented vision system as recited in claim 25, wherein the communication device is a personal digital assistant (PDA) ('544, col. 11, line 3).

30. An augmented vision system as recited in claim 25, wherein the survey data received from the remote server includes real-time updates of a survey-related dataset ('544, col. 7, line 8).

31. An augmented vision system as recited in claim 25, wherein the wireless network comprises a cellular telephony network ('544, col. 5, line 38).

32. An augmented vision system as recited in claim 25, wherein the communication device comprises a web browser and the remote server comprises a web server, such that the user requests the survey-related data from the remote server using the web browser ('544, col. 6, line 9 discloses "it is possible for user to pick and choose another map server which can provide his or her map information", the map server, 170, coupled to the internet, is interpreted as the web server, and the software

that allows the user to pick and choose map information is interpreted as web browser).

33. An augmented vision system as recited in claim 25, wherein the survey-related data is pushed by the remote server to the communication device without said data having been explicitly requested by the user ('544, col. 7, line 7 describes real time implementation, the changes that occur in real time would not be known to a user, thus they are inherently initiated without a user request).

34. An augmented vision system as recited in claim 25, wherein the input device is part of the communications device ('544, 130, cellular telephone inherently includes an input device).

35. An augmented vision system as recited in claim 25, wherein the input device comprises a virtual control object ('544, col. 9, line 14).

36. An augmented vision system as recited in claim 25, wherein the images of objects comprise images of natural or manmade objects visible within the field of view of the user ('544, col. 6, line 46 to col. 7, line 10).

37. An augmented vision system comprising:

a wireless hand-held communication device to receive survey-related data from a remote computer system via a wireless network ('544, 130); means for receiving the survey-related data from the communication device via a wireless link ('544, col. 5, line 35); means for generating stereoscopic image data based on the survey-related data ('544, 120); and means for displaying stereoscopic images to a user based on the image data, including means for superimposing, on a field of view of the user, stereoscopic images of natural or manmade objects visible within the field of view ('544, 110, and col. 4, line 63 to col. 5, line 10).

38. An augmented vision system as recited in claim 37, wherein the communication device is a cellular telephone ('544, 130).

39. An augmented vision system as recited in claim 37, wherein the communication device is a personal digital assistant (PDA) ('544, col. 11, line 3).

40. An augmented vision system as recited in claim 37, wherein the survey data includes real-time updates of a survey-related dataset ('544, col. 7, line 8).

41. An augmented vision system as recited in claim 37, wherein the wireless network comprises a cellular telephony network ('544, col. 5, line 38).

42. An augmented vision system as recited in claim 37, wherein the communication device includes a web browser, wherein the remote computer system comprises a web server, such that the user requests the survey-related data from the remote computer system using the web browser ('544, col. 6, line 9 discloses "it is possible for user to pick and choose another map server which can provide his or her map information", the map server, 170, coupled to the internet, is interpreted as the web server, and the software that allows the user to pick and choose map information is interpreted as web browser).

43. An augmented vision system as recited in claim 37, wherein the survey-related data is pushed by the remote computer system to the communication device without an explicit request for said data by the user ('544, col. 7, line 7 describes real time implementation, the changes that occur in real time would not be known to a user, thus they are inherently initiated without a user request).

44. An augmented vision system as recited in claim 37, further comprising means for receiving input from the user, wherein the image data is generated in response the input from the user ('544, figs. 1C, and 5A).

45. A method of facilitating survey operations, the method comprising: using a wireless hand-held communication device to receive survey-related data from a remote computer system via a wireless network ('544, fig. 1, 130); transmitting the received survey-related data from the communication device over a wireless link to a second device ('544, col. 5, line 35); generating stereoscopic image data in the second device based on the survey related data transmitted over the wireless link ('544, col. 4, line 37); and displaying stereoscopic images to a user based on the image data, including superimposing, on a field of view of the user, stereoscopic images of natural or manmade objects visible within the field of view ('544, col. 4, line 37).

46. A method as recited in claim 37, further comprising, prior to said using a wireless hand-held communication device, requesting the survey-related data from the remote computer system using a web browser ('544, col. 6, line 9 discloses "it is possible for user to pick and choose another map server which can provide his or her map information", the map server, 170, coupled to the internet, is interpreted as the web server, and the

software that allows the user to pick and choose map information is interpreted as web browser).

47. A method as recited in claim 37, further comprising receiving input from the user, wherein said generating stereoscopic image data is in response to the input from the user ('544, col. 9, line 51).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,046,689 to Newman.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Cherry whose telephone number is (703) 305-0425. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0719.

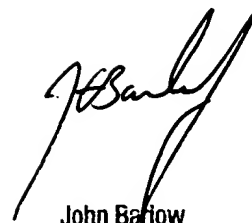
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SJC

July 9, 2003

A handwritten signature in black ink, appearing to read 'J. Barlow', written in a cursive style.

John Barlow
Supervisory Patent Examiner
Technology Center 2800